

Appl. No. 10/788,748
Amdt. Dated Sep. 5, 2005
Reply to Office Action of June 3, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A color filter for use in a liquid crystal display, comprising:

a substrate having two surfaces;

a polarizer matrix having a first polarization direction formed on one surface of said substrate and defining a plurality of openings; [[and]]

a color filter layer formed on said substrate in the openings of said polarizer matrix[.]; and

a polarizer film having a second polarization direction formed on another surface of said substrate;

wherein the second polarization direction of said polarizer film is perpendicular to the first polarization direction of said polarizer matrix.

Claim 2 (original): The color filter as recited in claim 1, wherein said polarizer matrix is made of a thin crystal film material.

Claim 3 (original): The color filter as recited in claim 1, wherein the first polarization direction of the polarizer matrix is determined by applying a stress force, or gravitational or electromagnetic fields on said polarizer matrix.

Claim 4 (original): The color filter as recited in claim 1, further comprising a protective layer covering said polarizer matrix and said color filter layer.

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Claim 5 (original): The color filter as recited in claim 4, further comprising a conductive layer covering said protective layer.

Claim 6 (original): The color filter as recited in claim 5, wherein said conductive layer is made of a transparent conductive material such as indium-tin-oxide.

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (currently amended): A method of manufacturing a color filter, which comprises the steps of:

- (a) providing a substrate having a first surface and a second surface;
- (b) forming a polarizer matrix on the first surface of the substrate, and the polarizer matrix defining a plurality of openings and having a first polarization direction; [[and]]
- ~~(c) curing the substrate, on which a polarizer matrix has been formed, in an oven.~~
- (c) forming a color filter layer on the substrate in the openings of the polarizer matrix; and
- (d) forming a polarizer film on the second surface of the substrate, the polarizer film having a second polarization direction perpendicular to the first polarization direction of the polarizer matrix.

Claim 10 (currently amended): The method as recited in claim 9, wherein step (b) further ~~comprising~~ comprises the step of ~~[[:]]~~ [[d)]] applying a stress force ~~[[,]]~~ or gravitational or electromagnetic fields on the polarizer matrix so as to obtain ~~[[a]]~~ the first polarization direction.

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Claim 11 (currently amended): The method as recited in claim 9, ~~wherein after step (e)~~, further comprising the following steps ~~[[of]] after step (d)~~:

~~(e) forming a color filter layer on the substrate in the openings of the polarizer matrix;~~

~~[[f]] (e) forming a protective layer covering the color filter layer and the polarizer matrix; and~~

~~[[g]] (f) forming a transparent conductive layer on the protective layer; and~~

~~(h) forming a polarizer film on the second surface of the substrate, the polarizer film having a second polarization direction.~~

Claim 12 (canceled)

Claim 13 (currently amended): A color filter for use in a liquid crystal display device, comprising:

a substrate having opposite first and second surfaces;

polarizer areas, having a first polarization direction, ~~[[and]]~~ formed on the first surface of said substrate and defining a plurality of openings therebetween;

a color filter layer formed ~~[[on]]~~ at the first surface of said substrate at least in the openings of said polarizer areas~~[[.]]~~; and

a polarizer film, having a second polarization direction, formed on the second surface;

wherein the first polarization direction of said polarizer areas is perpendicular to the second polarization direction of said polarizer film.

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Claim 14 (canceled)

Claim 15 (new): The method as recited in claim 9, wherein step (b) further comprises the step of: curing the substrate, on which the polarizer matrix has been formed, in an oven.